

1. A recombinant antibody capable of specifically binding to SAGA-1, said antibody comprising an antigen-binding region of the S19 monoclonal antibody, wherein the antigen-binding region consists essentially of SEQ ID NO: 1 and SEQ ID NO: 3 bound to one another by a linker.
2. The recombinant antibody of claim 1 wherein the linker is a peptide.
3. The recombinant antibody of claim 2 wherein the peptide linker is a $(\text{Gly}_4\text{Ser})_n$ polymer, wherein n is an integer ranging from 1-6.
5. The recombinant monoclonal antibody of claim 3 wherein the recombinant monoclonal antibody is coupled to an effector molecule selected from the group consisting of toxins, virucides and microbicides.
6. The recombinant monoclonal antibody of claim 5, wherein the toxin is adenylate cyclase toxin.
7. The recombinant monoclonal antibody of claim 3 wherein the recombinant monoclonal antibody is coupled to a diagnostic label.
9. A composition, comprising as an active agent the recombinant monoclonal antibody of claim 1, in a pharmaceutically acceptable carrier.
11. The composition of claim 9, wherein said recombinant monoclonal antibody is present on the surface of liposomes.
12. The composition of claim 11, wherein said liposomes are non-phospholipid positively charged liposomes.
13. The composition of claim 12 wherein the recombinant monoclonal antibody is coupled to or formulated with, an effector molecule selected from the group consisting of toxins, virucides and microbicides.

14. The composition of claim 13, wherein the toxin is adenylyl cyclase toxin.

15. A composition, comprising the recombinant monoclonal antibody of claim 1, immobilized on a solid support.

16. The composition of claim 15 wherein said antibody is covalently bound to said solid support.

17. The composition of claim 16 wherein the solid support is in particulate form.

18. A method of detecting the presence of sperm in a biological sample, said method comprising
contacting said sample with the composition of claim 15; and
washing the solid support to remove nonspecifically bound material.

19. A recombinant monoclonal antibody comprising an antigen-binding region of the S19 monoclonal antibody, wherein the antigen-binding region consists essentially of two binding peptides covalently bound to one another by a peptide linker, said binding peptides having an amino acid sequence of
a) SEQ ID NO: 1 and SEQ ID NO: 3, respectively; or
b) amino acid sequences identical to SEQ ID NO: 1 and SEQ ID NO: 3 but having 1 to 3 conservative amino acid substitutions in each of SEQ ID NO: 1 and SEQ ID NO: 3, respectively, wherein said recombinant antibody is capable of specifically binding to SAGA-1.

33. A nucleic acid sequence comprising a single chain Fv fragment selected from the group consisting of SEQ ID NO: 9, SEQ ID NO: 10, SEQ ID NO: 16 and SEQ ID NO: 12.

34. The nucleic acid sequence of claim 33 further comprising regulatory sequences for expressing the single chain Fv fragment in a host cell.

35. A host cell comprising heterologous DNA encoding a single chain Fv fragment selected from the group consisting of SEQ ID NO: 9, SEQ ID NO: 10, SEQ ID NO: 17 and SEQ ID NO: 12.

36. The host cell of claim 35 wherein the host cell is a bacterial cell and the DNA encodes a single chain Fv fragment comprising the sequence of SEQ ID NO: 17.

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